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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,411	12/20/2000	Andrzej Partyka	A. Partyka 20	6314

7590 03/09/2005

Andrzej Partyka
370 Finch Lane
Bedminster, NJ 07921

EXAMINER	
TRAN, KHANH C	

ART UNIT	PAPER NUMBER
2631	

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/741,411	PARTYKA, ANDRZEJ	
	Examiner	Art Unit	
	Khanh Tran	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 November 0200*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-14* is/are allowed.

6)☒ Claim(s) *15-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 December 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *03/04/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The Supplemental Response filed on 11/22/2004 has been entered, the Amendment filed on 10/19/2004 has been entered. Claims 1-20 are pending in this Office action.

Response to Arguments

2. Applicant's arguments, see pages 1-14 of the Remarks, filed on 10/19/2004, with respect to the rejection(s)of claim(s) 1-20 under 35 U.S.C 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Adair, Jr. U.S. Patent 5,659,303 and Kent U.S. Patent 5,222,142.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adair, Jr. U.S. Patent 5,659,303 in view of Kent U.S. Patent 5,222,142.

Regarding claim 15, Adair invention is directed to a method and apparatus for transmitting data from a monitoring station using frequency hopping and interval hopping. In column 3 line 65 through column 4 line 10, figure 1 illustrates three monitoring stations 40 42 44 spaced apart in a data collection area. The monitoring stations 40 42 44 are data gathering stations including power monitors 34 36 38 such as power meters used in typical residences to monitor electrical power usage.

Adair invention does not expressly teach the monitoring circuit transmitting transmissions intermittently, at time intervals and at various frequencies, independently of any receiver of the transmissions as claimed. In column 4, lines 40-55, Adair teaches in one embodiment that in order to minimize collisions, the *intervals between groups of bursts and the output frequencies of each* of the signals D40, D42, D44 are varied randomly, see figure 1. In view of the foregoing, it would have been obvious for one of ordinary skill in the art at the time the invention was made that the monitoring circuit transmitting transmissions at time intervals and at various frequencies, independently of any receiver of the transmissions as claimed. Furthermore, in column 4, lines 10-30, Adair expresses that the monitoring stations 40, 42, 44 do not operate on battery power, they are not strictly by power use constraints. In view of that, one of ordinary skill in the art would have recognized that they can be power use constraints and can transmit transmission intermittently. Referring to figure 2, the

transmitter 46 corresponds to the claimed circuit for transmitting transmissions intermittently.

Figure 2 illustrates a monitoring station 40, operation of the monitoring station 40 and interface between the transmitter 46 and monitor 34 is controlled by an integrated controller 72; see column 4, line 63 via column 5, line 5. The microcontroller provides a frequency for each burst in a series of burst, wherein each burst in the series is separated from any previous burst by a respective time interval. In view of that, the integrated controller 72 controls transmission frequency and time between transmissions as claimed in the application claim.

Adair invention does not teach the transmitter is for varying encryption for the transmissions, based at least in part, on the frequency-time pattern. Kent discusses in Description of Related Art in a US Patent that encryption and decryption typically involve the use of a sequence generator to provide a random or pseudo-random sequence of data bits which are used to control frequency hopping, spread spectrum or other security scheme of the system. In view of that, it would have been obvious for one of ordinary skill in the art at the time the invention was made that Adair monitoring station can be modified to implement a sequence generator to provide a random or pseudo-random sequence of data bits which are used to control frequency hopping as discussed in Kent invention. The motivation is obvious that as a security measure, data communication over the hardwired and wireless networks is encrypted and de-crypted for lower possibility of data being viewed or tampered by unauthorized individuals.

Regarding claim 16, in column 4, lines 54-65, output frequency f_{out} of each of the transmitters 46, 48, 50 can be varied randomly between a maximum f_{max} and f_{min} by comparing the retrieved random number to data limits stored in a memory in the transmitter and rejecting retrieved random numbers outside of the retrieved limits. The transmitter further includes an interval selector connected to retrieve random numbers from the random number table. The interval selector selects each of the time intervals between groups in response to the retrieved random numbers such that the time intervals vary randomly; see column 3, lines 10-20. In view of that, the frequency-time pattern as taught by Adair, Jr. is determined based on random numbers stored in the memory.

Regarding claim 17, in column 4, lines 10-40, each digital sequence includes a first portion representing the monitored information, a second portion representing the identification number of the unit and a third portion representing other information. In column 3, lines 15-42, Adair, Jr. further teaches a plurality of random numbers are generated and stored in respective locations in a random number memory in each monitoring station. In view of that, each monitoring station has an identification number of the unit associated with the frequency-time pattern generated by the stored plurality of random numbers.

Regarding claim 18, claim 18 is rejected on the same ground as for claim 15 because of similar scope. Furthermore, in column 3, lines 15-42, a plurality of random

numbers are generated and stored in respective locations in a random number memory. The output frequency and interval hopping are generated by the stored random numbers. In view of that, the means for generating the plurality of random numbers as taught in Adair, Jr. performs equivalent function of the claimed modifier.

Regarding claim 19, claim 19 is rejected on the same ground as for claim 16 because of similar scope.

Regarding claim 20, claim 20 is rejected on the same ground as for claim 17 because of similar scope.

Allowable Subject Matter

4. Claims 1-7 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 1, claim 1 is allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose a method of authentication in a telemetry system, the method comprising "*holding, by a receiver, simultaneously for each of said plurality of transmitters, data indicative of an expected frequency and an expected time of at least one future transmission*" and "*authenticating transmissions based on an expected and actual transmission frequency and time*". It is

noted the closest prior art, Adair (US 5,659,303) disclosing Method And Apparatus For Transmitting Monitor Data and Kent (US 5,222,142) disclosing Sequence Generator, fails to anticipate or render the above underlined limitations obvious.

5. Claims 8-14 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 8, claim 8 is allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose a receiver for authenticating telemetry transmission, the receiver comprising "*logic for holding simultaneously for each of said plurality of transmitters, data indicative of an expected frequency and an expected time of at least one future transmission*" and "*authenticating transmissions based on an expected and actual transmission frequency and time*". It is noted the closest prior art, Adair (US 5,659,303) disclosing Method And Apparatus For Transmitting Monitor Data and Kent (US 5,222,142) disclosing Sequence Generator, fails to anticipate or render the above underlined limitations obvious.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sawyer U.S. Patent 5,179,569 discloses "Spread Spectrum Radio Communication System".

Sears U.S. Patent 5,719,564 discloses "Utility Meter Reading System".

Glorioso et al. U.S. Patent 5,914,672 discloses "System For Field Installation Of A Remote Meter Interface".

Venkataraman et al. U.S. Patent 4,862,493 discloses "Electronic Remote Data Recorder For Electric Energy Metering".

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Tran whose telephone number is 571-272-3007. The examiner can normally be reached on Monday - Friday from 08:00 AM - 05:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KCT

Khanh cong Tran 03/04/2005

Examiner KHANH TRAN